CLASSIFICATION RESTRICTED

CENTRAL INTELLIGENCE AGENCY
INFORMATION FROM RESTRICTED
FOREIGN DOCUMENTS OR RADIO BROADCASTS

REPORT
CD NO

STAT

COUNTRY China

DATE OF INFORMATION 1947

SUBJECT Military-Ordnance

.1862

HOW PUBLISHED Manual

DATE DIST 9 Dec 1948

WHERE PUBLISHED Pei-p'ing

NO. OF PAGES 12

DATE PUBLISHED 17 July 1947

SUPPLEMENT TO

LANGUAGE Chinese

STAT

DIRECTIONS FOR USING TYPE-28 RIFLE GRENADE AND TYPE-36 HAND GRENADE

70th Arsenal Munitions Office,
Central Joint Services Ministry

[Figures are appended.]

I. DIRECTIONS FOR USING TYPE-28 RIFLE GRENADE

A. Brief Description of Construction

1. Rifle Grenade Discharger

The rifle grenade discharger is a simple steel pipe, over-all length about 250 mm. total weight about 3/4 kg.

When installing the discharger on a rifle, the discharger barrel must be fitted over the muzzle of the rifle.

The forward gunsight must pass beyond the discharger barrel's opening and guide ring. This ring can be turned to one side or else left in the original position as long as the aiming is not hampered. Then the screw is tightened, making the grenade discharger fit tightly on the rifle.

The grenade discharger is ordinarily not removed. Ordinary cartridges may still be fired, since it does not interfere with the aim.

The grenade discharger does not need any particular care, except that it must be rubbed frequently with oil, or if no petroleum is available, with lard or other fat with the exception of raw vegetable oil. The best method to clean the rifle grenade before firing, or after firing several times, is to move the wooden handle of the rifle grenade several times up and down the barrel to remove the dirt in the barrel and then to rub it with grease.

When on the march the grenade discharger may be left on the rifle, or may be hung on the grenade discharger hook on the belt by using the tightly screwed ring. The barrel mouth must be closed with greased felt to prevent dust or moisture from entering.

CLASSIFICATION RESTRICTED

STATE	X	NAVY	X	NSRB		DISTRIBUTION	
ARMY	X	AIR	X				

When in use the "primer handle unit" must first be fitted by screwing into the projectile (Figure 9), and then issued to the soldiers. The fitting process is very simple, as the two units only need to be screwed tightly. This can be done anywhere at any time.

The body of a phosphorus rifle grenade is subject to damage by moisture and to spontaneous combustion but not to the hazard of explosion. Since it is tightly sealed in an iron-covered box, it is safe for both transportation and storage unless the box is broken. If the box is broken, or the projectiles give forth heavy smoke, the box should be opened and the smoking projectiles taken out, thrown into deep water or buried in the ground, or destroyed in some other way. If they can be used at once, as for example in training, that also is permissible.

On the wooden handle of a phosphorus rifle grenade, as on that of an ordinary grenade, is a range scale, showing the approximate range at 35 degrees. By inserting the wooden handle just a little into the barrel the desired target range is obtained. For instance, by raising the rifle to 35 degrees (Figure 6) and inserting the phosphorus rifle grenade all the way into the barrel, a range of 220 meters is attained. As soon as the grenade hits the ground it will explode. If the phosphorus rifle grenade's wooden handle is inserted all the way into the barrel, and the rifle is raised to 45 degrees, a maximum range of 250 meters is attained but at the time of the explosion the phosphorus projectile will not have hit the ground and an aerial explosion will then result.

The rubber on the wooden handle and the safety cap have the same function as in the ordinary rifle grenade (See Section 4.)

The amount of explosive in a phosphorus rifle grenade is very small, because its purpose is merely to scatter the phosphorus by the force of an explosion, so that as soon as the phosphorus meets the air it may burst into flame and emit thick white smoke. In the body are placed many small capsules, each filled with phosphorus. When the grenade is exploded, the capsules can fly 25 to 30 meters and give enemy personnel severe burns, or ignite inflammable substances. Since phosphorus can emit a heavy curtain of smoke, it can serve to conceal friendly troops, but under certain wind conditions the smoke screen cannot stay long in the air. To maintain the needed density, several grenades should be discharged at once.

6. Signal Flares and Other Special Types of Rifle Grenades

(Details in a separate pamphlet)

7. Special Cartridges

Special cartridges contain a special-type discharge powder and do not contain bullets (Figure 10). They are solely used for shooting rifle grenades. If the special cartridge is lost, an ordinary cartridge may be used by removing the head, tightly stopped with a soft wooden material, and substituting it for the special cartridge. If this substitute cartridge is used, the range is not as great as that of a special cartridge; hence this method of using a substitute should not be followed except in emergencies.

Ordinary cartridges which have bullet heads cannot be used at all to fire rifle grenades, because not only do they injure the rifles and grenade discharger barrels, but also may injure the operator.

B. Basic Equipment

1. Any soldier using such rifle grenades must have the following equipment:

a. A 79-caliber rifle

b. A small round spade carried by the infantry

c. A rifle grenade discharger and hanger hook

d. Leather rifle-butt sheath

e. Several rifle grenades and special grenades (for the time being, in infantry companies using this type of weapon, each squad shall be equipped with two grenade dischargers and 28 grenades, two grenades for each man).

2. Any type of 79-caliber Mauser infantry rifle can be used, excepting those which formerly had gunsight protective rings, such as the MA rifles. The most convenient to use are the Chung-cheng (Generalissimo) type 79-caliber infantry rifles, or German, Czech, or Belgian-make of the 1935-type infantry rifle.

When an infantry rifle has too large a gunsight seat (as Chinese-made infantry rifles), then the copper tightening sleeve on the grenade discharger barrel, which fits over the rifle barrel, may be removed (Figure 12).

In all rifles used for firing rifle grenades one should notice the condition of the rifle butts. These must not have any knots or cracks. The condition of the barrel is not important. It is only necessary that there be no flaring at the muzzle which may prevent the discharger from being fitted on.

C. Procedure for Using the Grenade

1. Procedure for Use as a Rifle Grenade.

a. Fix the grenade discharger.

b. Put on the leather rifle-butt sheath.

c. Dig a hole in the ground with the space as a rest for the rifle butt, or use a natural rest.

d. Insert the special cartridge into the cartridge chamber of the rifle, but do not push the cartridge into the rifle bore.

e. Take one rifle grenade, remove its safety cap, take out the rubber band together with the steel wire safety pin, but under no circumstances pull out the fine copper wire which is in the same hole. When the safety pin does not come out along with the rubber band, pull it out (Figures 13 and 14).

f. Next insert the wooden handle of the rifle grenade into the barrel, causing the range scale printed on the wooden handle to stop at the range already decided on, at the mouth of the barrel. When the felt cushion on the wooden handle is too thin or too small, so that the wooden handle will not stop at the needed depth outside the barrel(dropping to the bottom of the barrel, or slipping out of the barrel mouth), use the edge of the safety handle cover slightly to press the edge of the felt cushion, causing it to push out a little, after which it can be used at once.

g. Now push the special cartridge into the cartridge bore. When it cannot be pushed in as easily as an ordinary cartridge, push it in by hand into the rifle bore. Then move the clip on the scale to the 2,000-meter graduated line on the scale, raise the rifle, level the indicator and fire. When using a German-made type-24, 79-caliber Mauser infantry rifle, raise the rifle so that when the indicator is level; the rifle will then make an angle of about 35 degrees. Other infantry rifles may be slightly different; for instance, the Chinese-made 79-caliber rifle must be placed at the 1,800-meter graduation line; then by raising the rifle until the indicator is level, an angle of about 35 degrees is obtained.

If rifle grenades are fired repeatedly, after the first firing the rifle grenade is inserted into the barrel; then, the special cartridge is inserted into the cartridge bore.

Regardless of whether the rifle grenade is of the ordinary explosive or the yellow-phosphorus type, when it explodes in the air within 10 meters above the surface of the ground, it exhibits its greatest destructive power. (The position of explosion in the air of a phosphorus grenade must be slightly lower than that of an ordinary grenade; by no means may its position of explosion be higher than 10 meters, or the phosphorus will all be consumed in the air.)

If it is desired that this grenade will definitely explode in the air, the angle of fire can be adjusted in accordance with the topography; the angle between the rifle and the horizon, depending on the circumstances, may be adjusted between 45 and 75 degrees. At the same time the depth of insertion of the wooden handle into the barrel may be altered to attain the required range (compare Table 1). But when there is special terrain, firing may also be done at an angle of 10 to 15 degrees (compare Table 2), or even lower. If fired in hilly country or from a high building, the rifle is pointed downwards; the entire wooden handle is inserted into the barrel, and the grenade fired a little in front of the target. These weapons are not equipped with sights; consequently, cannot be expected to have high accuracy. When they are used by an experienced operator, very good results should be obtained. For instance, among the rifle grenades fired within the ranges indicated below, at least one half can be sure of hitting in the circles of the diameters shown at the right:

Range (Meters)	Diameter of Circle (Meters)
170-220	15
120-170	10
70-120	5

One point must be made clear here: rifle grenades are a type of long-range hand grenade. Although their range is not as accurate as artillery shells, their effect and accuracy far exceeds that of hand grenades.

When the rifle grenades are not in use, the safety pin and rubber band and the safety cap should be replaced.

When firing an ordinary or phosphorus rifle grenade, the operator must be in a kneeling position with the infantry rifle placed at his right. This type of rifle grenade may also be fired while holding the rifle, but its recoil is so very heavy, that the rifle butt must be held tightly against the shoulder, to avoid injury from the recoil.

2. Procedure for Use as a Hand Grenade

Because the fragments of phosphorus from ordinary and phosphorus rifle grenades are scattered very far, they can only be thrown from behind a protective cover, such as is used in throwing an ordinary hand grenade.

When using the grenade first, draw out the rubber fabric and the safety pin, at the same time the fine copper wire (Figures 15 and 16).

Next grasp the wooden handle in the right hand and strike the tail-end of the wooden handle strongly against a hard object such as a rifle butt or a stone. A popping sound will be heard. The fuse cap has been struck. If it does not strike, the handle again may be hit strongly. When it has been struck, count silently one, two, three, then throw the rifle grenade at the target. (When the rifle grenade has been struck, it may be thrown at once; but its fuse-delay

interval is about 6½ seconds, which is about 2 seconds slower than that of an ordinary hand grenade. So upon the grenade's hitting the ground a slightly longer time must elapse before it can explode).

When the rifle grenade is not in use, both the steel-wire safety pin and the fine copper wire should be put back in place and the rubber band replaced. Never carry a rifle grenade lacking the steel-wire safety pin and the fine copper wire.

3. Notes on Procedure

a. Never use an ordinary cartridge containing a bullet to fire a rifle grenade.

b. Never use a rifle grenade with a damaged handle.

c. When firing, take care to tear off the rubber band and to pull out the safety pin; otherwise the grenade will not explode.

d. Except when used as a hand grenade, do not remove the fine copper wire.

e. Do not carry a rifle grenade which lacks the safety pin and the fine copper wire.

f. Do not place the rifle grenade in water or in a damp place or rest it near heat or a stove.

Furthermore, when more than 5 percent of rifle grenades fail to explode, record the place and date of issue (all noted on the wooden box) and notify this office.

Table 1. Range Scale for Type-28 Rifle Grenades

(To make Type-28 rifle grenades explode within 10 meters above the ground, or upon landing, they may be fired according to the angle of fire and the scale on the wooden handle, that is, the range indicated by the depth of insertion of the wooden handle into the barrel, corrected according to the table below.)

Range (in meters)	Angle of Fire	Scale on Fire Handle	Notes
250	45	200	Explodes at less than 10 meters
190	45	190	Ditto or on hitting ground
170	45	170	" " " " "
150	55	150	" " " " "
130	60	130	" " " " "
100	70	120	" " " " "
70	70	100	" " " " "

Table 2. Range and Angle of Fire of Type-28 Rifle Grenade

(When the rifle grenade handle is inserted all the way into the barrel)

Angle of fire	Range (in meters)	Time of Flight (in seconds)	Notes
10	80	3	Explodes 3 seconds after hitting ground
15	120	3.5	" " " "
20	150	4	" " " "
25	180	4.5	Explodes about 1 or 2 seconds after hitting ground
30	200	5	" " " "
35	220	6	Explodes as soon as it hits
40	230	6.5	" " " "

II. DIRECTIONS FOR USING TYPE-36 SHORT HAND GRENADE

A. General

The Type-36 short wooden-handle hand grenade is a project of the 70th Arsenal, Munitions Ministry, produced in the 36th year of the Republic [1947], hence called Type-36. Its construction is largely similar to that of the regulation small hand grenade. Its points of superiority are: reduced size, convenience of transportation, standard speed of combustion, safety in use, good protection against dampness, ease of preservation, added thickness of walls, and increased destructive effect.

B. Structure (See appendix)

C. Procedure for Use

The method of using the hand grenade is as follows:

1. First Method of Use

a. Grasp the grenade tightly in the left hand, unscrewing the safety cap with the right.

b. Slowly take out the pull ring with the right hand, slip it on the little finger of the right hand, grasping the grenade tightly with the other fingers.

c. Throw at the target in a parabolic curve, while the ring on the little finger sets off the fuse cap at the same time.

d. Immediately after throwing the grenade, lie down on the ground or behind a shelter, so as to escape fragments.

2. Second Method of Use

a. Grasp the grenade firmly in the right hand, unscrew the safety cap with the left.

b. Take out the pull ring, slip it on the forefinger of the left hand, give a strong jerk, and after the fire cap ignites, throw at the target.

c. Same as fourth step, first method.

D. Effectiveness

The destructive effect of fragments from Type-36 hand grenades can extend to a radius of 12 to 18 meters, and blast pressure effect to about 3 meters. This grenade is very effective in close fighting; not only can the fragments badly wound the enemy troops but its powerful blast pressure is also fatal.

This grenade, if thrown at close range, can achieve great results against protective armor of cannon and machine guns, and other shelters.

E. Transportation

The following matters must be given attention in transporting grenades:

1. Use caution in moving; avoid bumps or shocks.
2. Absolutely avoid exposure to sun or rain.
3. Transport vehicles or boats should be equipped with protective covering.

F. Preservation

1. Keep storehouses dry and ventilated.
2. Do not put near fire or high temperature.
3. Do not place near explosives, inflammables, or chemicals.
4. Lay the boxes on wooden rests; do not let them touch walls.
5. Until using, do not unscrew safety caps and allow moisture to get in.

G. Specifications

Item	Unit	Amount
Weight of whole grenade	Grams	500-550
Weight of powder	"	35 approx
Total length	mm	135
Length of body	"	90 ± 1.00
Outer diameter of body	"	44
Thickness of shell	"	5 ± 0.50
Interval of explosion (fuse delay)	seconds	4 to 5.5
Radius of destruction,	meters	12 to 18
Effective range of blast pressure	"	3
Throwing distance	"	30

[Appended figures follow.]

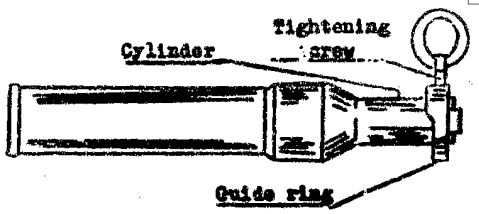


Figure 1. Discharger

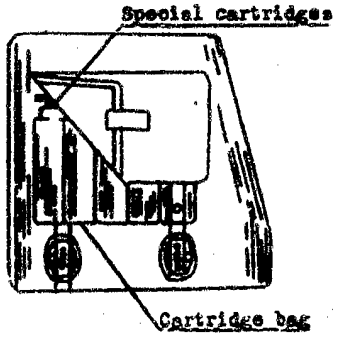


Figure 2. Leather Rifle-butt Sheath

Figure 3-A. Correct Figure 3-B. Incorrect

Figure 4. Hook for Grenade Discharger

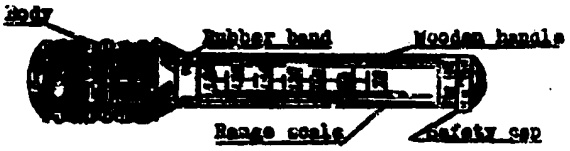


Figure 5. Ordinary Rifle Grenade

RESTRICTED

STAT

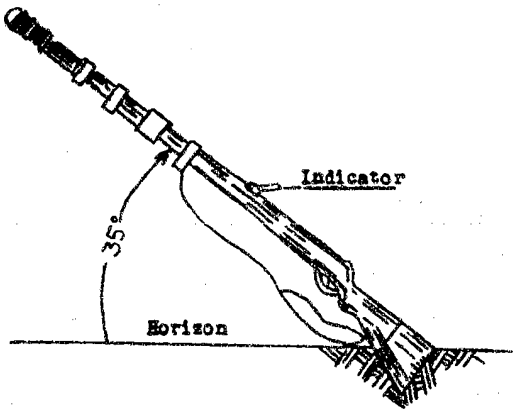


Figure 6. Position for Firing a Rifle Grenade

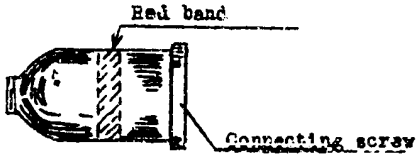


Figure 7. Phosphorus Rifle Grenade Body

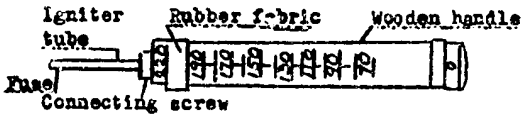


Figure 8. Phosphorus Rifle Grenade "Primer Handle Unit"

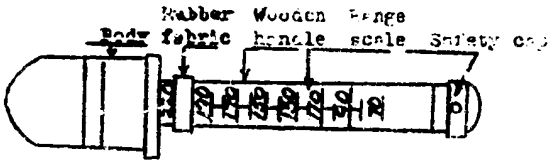


Figure 9. Complete Sketch of Phosphorus Rifle Grenade

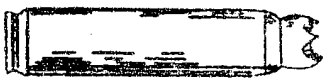


Figure 10. Special Cartridge (Without Head)

Figure 11 omitted in original

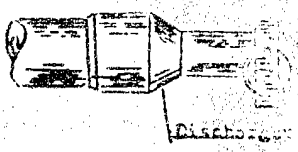


Figure 12. Removing the Copper Tightening Sleeve

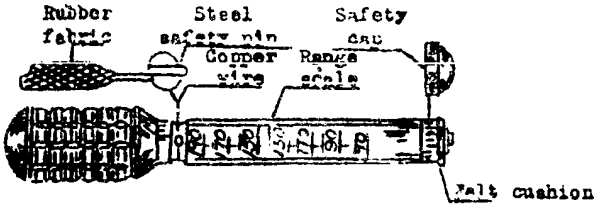


Figure 13

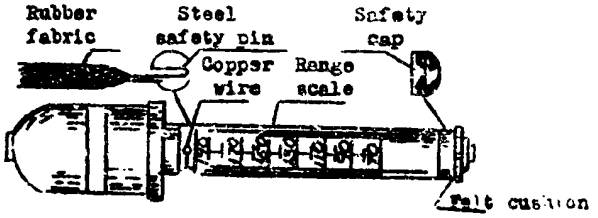


Figure 14

RESTRICTED

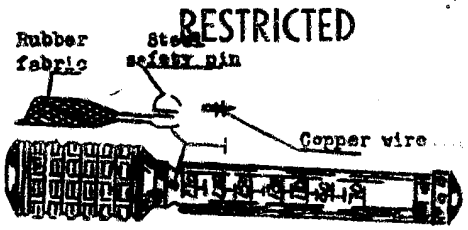


Figure 15

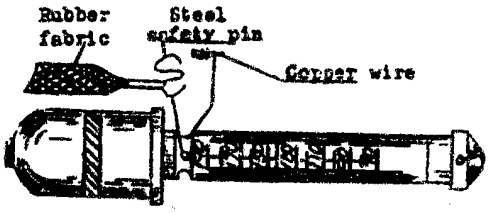
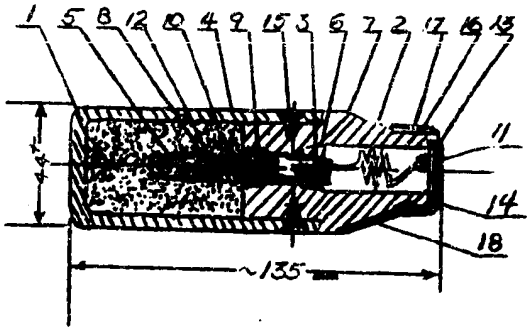


Figure 16

Structure of Type-36 Short Hand Grenade



1. Shell
2. Handle
3. Igniter tube
4. Powder tube
5. Detonator
6. Fuse cap
7. Paper
8. Inner tube
9. Stopper
10. Powder stop
11. Fuse wire
12. Powder cake
13. Safety cap
14. Pull ring
15. Wood screw
16. Rubber band
17. Seal tape
18. Antimoisture strip

- E N D -

RESTRICTED

STAT

Next 1 Page(s) In Document Denied